2001 Application Packet

Completed Applications must be postmarked by February 12, 2001

The Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) Program was established in 1983 by The White House and is sponsored by the National Science Foundation (NSF). The program identifies outstanding science and mathematics teachers, kindergarten through 12th grade, in each state and the four U.S. jurisdictions. These teachers will serve as models for their colleagues and will be leaders in the improvement of science and mathematics education.

Since 1983 more than 3,000 teachers have been selected to enter the network of Presidential Awardees. They represent a premier group of science and mathematics teachers who bring national and state standards to life in their classrooms. They provide the Nation with an impressive array of expertise to help improve teaching and learning while becoming more deeply involved in activities such as curriculum materials selection, research, and teaching other teachers.

While most teachers remain in the classroom, some have become school principals, supervisors, superintendents and college faculty. Recognition is given to K–12 teachers in four award groups: (l) elementary mathematics, (2) elementary science, (3) secondary mathematics, and (4) secondary science. The secondary groups can include middle, junior, and senior high school teachers. Four Presidential Awards will be given in 2001 in each state and the four U.S. jurisdictions—*up to a total of 216 awardees.*

Applications are encouraged from teachers from all locations (urban, suburban, small town, rural) and all underrepresented minority groups (American Indians, African Americans, Hispanics, Native Alaskans, Native Pacific Islanders).

Administered by the National Science Foundation for The White House, the PAEMST Program resides in the NSF Directorate for Education and Human Resources, Division of Elementary, Secondary, and Informal Education

Presidential Award Program Information

Eligibility

- Certified teachers who are assigned to K–12 science and/or mathematics classrooms in a public or private school in a state or eligible jurisdiction.

- Teachers who anticipate a classroom teaching assignment for the following year. (Teachers on approved leave qualify if they have fulfilled the requirements in the previous year.)

- Teachers with at least five years K–12 teaching experience in science and/or mathematics prior to application.

- Teachers who are full-time employees of their school districts.

- Elementary teachers who are assigned, at least half-time during the school year, to classroom teaching, and who teach mathematics and/or science in a self-contained classroom setting or as teaching specialists.

- Secondary teachers who are assigned, at least half-time during the school year, to classroom teaching of science or mathematics.

- Past Presidential Awardees are **not** eligible.

Categories

- Teachers in self-contained classrooms, who teach science or mathematics in addition to other subjects, or elementary grade specialists, compete in the elementary school program in either the mathematics or science category.

- Teachers in departmental classrooms, who teach science or mathematics at least 50 percent of the time, compete in the secondary school program in either the mathematics or science category.

- Teachers of computer science whose students receive mathematics or science credit for their course, compete in the secondary school program in either the mathematics or science category.

Selection Process

State and jurisdiction selection committees choose three finalists from each of the four award groups for recognition at the state level. Each of the twelve state-level finalists receives the National Science Foundation State Award for Excellence in the Teaching of Mathematics and Science, which includes $750. **To ensure consistency across states, state selection committees will use the rubric in this application to score submissions.**

The eligible jurisdictions include Washington, D.C.; Puerto Rico; Department of Defense Dependent Schools; and U.S. Territories as a group—American Samoa, Guam, the Commonwealth of the Northern Marianas, and the Virgin Islands.

Teachers compete with others from within their own state at the national level. A national selection committee, comprised of prominent scientists, mathematicians, educators and past awardees, reviews the application packets of the state-level finalists and makes recommendations to the National Science Foundation. These recommendations are sent forward to the President.

The Award

The Presidential Award includes:

(1) A $7,500 National Science Foundation grant to the award's school, **to be spent under the awardee's direction** over a three-year period, to improve school mathematics and science programs,
(2) Generous gifts to the awardees and their schools from donors, and
(3) Recognition events in Washington, D.C., which will include:

- an awards ceremony and presidential citation,
- meetings with leaders in government and education,
- workshops to share ideas and teaching experiences, and
- receptions and banquets to honor recipients

All applicants to the PAEMST Program must provide the materials requested in this packet for consideration by the state and national selection committees. These materials are divided into five sections and should be submitted in this order:

I. **Evidence of Talent in Teaching** *(6-page maximum; narrative text, double-spaced; no photographs should be included.)*

II. **Assessment of Student Learning** *(6-page maximum, including student work; narrative text, double-spaced)*

III. **Background and Experience** *(2-page maximum, single-spaced, résumé format)*

IV. **Photographs of Learning Activities** *(2-pages)*

V. **Three Letters of Support**

(Please see instructions for submission.)
specific evidence of your successful classroom practices.

Text

- All narrative material must be word processed or typewritten. Please adhere strictly to each section's spacing requirements. Where double-spacing is required, **one and a half line spacing will not be accepted.** Application materials should be on 8½ x 11-inch plain paper (one side only, portrait orientation) with at least a half-an-inch margin around the entire sheet of paper.

Instructions for Submission

- Type size, whether word processor or typewriter, should be **12 point and no more than 14 characters per inch of text.** Width between characters should be set at normal (100%).

Photographs

- Photographs can be 8 x 10 inches or smaller, black and white or color prints. Color copies of photographs are acceptable. Photographs should be attached to 8½ x 11-inch sheets of paper (one side only). Please do not submit slides, videotapes, or newspaper clippings. Photograph captions should not exceed 30 words per photo. Please write your name, state and category on the back of each photograph.

Assessment of Student Learning

- Student work samples, whether original or reproduced and including student assessments, must conform to the 8½ x 11-inch format but need not be double-spaced.

- Please do not send models, oversized projects, scrapbooks, tapes, or software.

Letters of Support

- Three letters of support are required; at least one of which must be from a current immediate supervisor or district-level administrator. These letters must be signed and then sealed, with the writer's signature across the sealing flap.

- Please emphasize to the writers that failure to seal and sign the envelope or exceeding the one-page limit will disqualify the letter. Please submit them with your completed application.

Requirements for Application Submission

- To assure that the materials can be easily reproduced, do not place pages in a bound folder or notebook. Unbound folders and clips are fine.

- In addition to your original application, please include **five** photocopies of your complete application for your state-level reviewers.

Please follow all instructions carefully, as deviations will result in disqualification. Please remember that the selection committees read dozens of applications. Small font, narrow margins, extra pages, etc. will result in disqualification.

Application Packet Requirements

I. Evidence of Talent in Teaching *(6-page maximum; narrative text, double-spaced; no photographs should be included but reference may be made to photographs included in Section IV.)*

Purpose: To learn what you, the teacher, consider exemplary teaching and how you go about achieving it.

Your materials in this section should give evidence that your instruction is based on:

- your vision of exemplary science and mathematics teaching and how it conveys sound and significant mathematics and science concepts;
- written materials from a unit, module, or the identification of a theme that exemplifies your vision. State your goals and expectations for the unit, module, or theme. The materials selected should address student inquiry, problem formulation, and problem-solving. These materials may or may not be original to you**. If work is adapted, document the source(s) of the material(s);**
- discuss how you use materials and how your use of the materials reflects the students' understanding, interests, and experiences in mathematics and science.
- identify the way you are able to meet the needs of a diverse student population representing a range of ideas, skills, and experiences; and
- include ways in which your teaching practice demonstrates an innovative or inventive instructional approach.

Please demonstrate throughout this section how your teaching of mathematics or science addresses national and/or state standards.

II. Assessment of Student Learning *(6-page maximum, including student work; narrative text, double-spaced; reference may be made to photographs included in Section IV.)*

Purpose: To learn what you, the teacher, consider exemplary student assessment and how you go about achieving it.

Your material in the section should relate to the material in Section I and include:

- the purposes of assessment in your classroom;
- a sample of student work that illustrates how your assessment activities assess student skills, procedural knowledge, and factual knowledge as part of doing mathematics or science; and
- a discussion of (1) the relationship of the assessment to your instructional practices and materials, (2) the strengths of your assessment activities, and (3) the instructional decisions you made as a result of the assessment activity.

III. Background and Experience
(2-page maximum, single-spaced résumé format)

Purpose: To show that you have a strong commitment to teaching mathematics and/or science content, an educational foundation in the methods of teaching, and experience in the classroom. To demonstrate that you have a sustained commitment to continuing education and professional development, please provide the following information:

A. Formal and Continuing Education Include institutions, dates, and degree(s) earned. List additional science/mathematics course(s) beyond your undergraduate degree.

B. Teaching Experience List school(s), important teaching assignments, dates, and any other information that provides an accurate description of your teaching career.

C. Professional and Community Activities Focus on activities within the past five years such as:

- Professional, school, community and/or youth organizations or activities that illustrate your role as an advocate for education; and
- Leadership roles, publications, research and/or professional development activities you have presented.

IV. Photographs of Learning Activities
*(2-page maximum, **at least one page of the photographs should illustrate the unit, module, or theme in Section I and/or Section II.** Photographs should **not** be integrated into the text.)*

V. Three Letters of Support
(Please see instructions for submission on page 3 of this application.)

Purpose: To demonstrate support for the teacher from a colleague, administrator, parent, and/or student, and to provide an opportunity to highlight the candidate's abilities beyond those revealed in the application materials. **At least one of the letters must be from a current immediate supervisor or district-level administrator.**

See the sample "Instructions for Writers of Letters of Support." Request only three letters of support. Letters of support should come from mentors, colleagues, students, parents of students, supervisors/ administrators, principals, department chairs, and/or others from the educational community who can give specific evidence of your successful classroom practices.

Letters of Support

The PAEMST Program seeks to identify, recognize, and reward outstanding K–12 teachers of mathematics and/or science. As part of the application process, applicants are required to seek letters of support from a variety of individuals.
As a writer of a letter of support you are asked to give evidence of the applicant's effectiveness as a classroom teacher in mathematics and science and other professional activities. It should be noted that success with low- or average-ability students is just as significant as with high-ability students.

Instructions for Writing Letters of Support

You may wish to consider the following suggestions.

If you are the current Administrator or a Supervisor:

- How has the teacher supported mathematics and/or science education reform in terms of the curriculum, new instructional strategies, specific materials, work with other teachers, or school/district/activities?

If you are a Parent or Student:

- What did this teacher do to influence or motivate your child or you and other students?

- Why do you consider this person to be a good teacher? (Cite specific examples.)

If you are a Colleague:

- How has this teacher supported other teachers to improve mathematics or science teaching?

NOTE: For further information about the selection process at the state level for the PAEMST Program, contact your state science or state mathematics State Coordinator. Please visit our website at http://www.nsf.gov/pa to find your PAEMST State Coordinator.

Sample One-Page Format

Your letter is intended for use by selection committees at the state, and possibly national level. You may simply address it "PAEMST Selection Committee."

- The **maximum** length of your letter **is one page** (either single-spaced or double-spaced).

- Place your signed letter in an envelope, **seal the envelope and sign your name across the sealing flap.**

- Please **return** the sealed envelope with your letter by ___/___/___ **to the teacher who requested the letter from you** so that it can be included with the teacher's application materials.

Jefferson School
1234 Main Street
Anywhere, ST 54321

February 1, 1999

Dear PAEMST Selection Committee:

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXX

XXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXX

Sincerely,

Chris M. Kelsey
(State relationship to nominee)

Chris M. Kelsey

2001 PAEMST
Application Rubric

The following criteria will be used to evaluate your application. We have outlined the scoring rubrics for each section of the application. (*Note to applicant: This rubric has been included to illustrate how your application will be evaluated. Please do not return this section with your application packet*.)

I. Evidence of Talent in Teaching

To what degree are the following exemplars evident?

A. The teacher has a strong, coherent vision of mathematics or science teaching and presents sound and significant mathematics or science concepts in accordance with national standards.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

B. The mathematics or science content in the selected unit, module, or theme is accurate and appropriate for the designed purpose. The goals and concepts are clearly stated and developed through student inquiry, problem formulation, and problem-solving.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

C. Content is developmentally appropriate for the students' levels of understanding. Content is selected and adapted within a curriculum design to meet the interests, knowledge, understanding, abilities, and experiences of the students.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

D. There is evidence of respect for the diverse ideas, skills, and experiences of all students. The educational strategies recognize and respond to student diversity and enable all students to participate fully.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

E. There is an element of the instructional approach that is innovative or inventive and may improve teaching practice.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

II. Assessment:

To what degree are the following exemplars evident?

A. The teacher clearly articulates multiple purposes for assessment. These could include, but are not limited to, monitoring student progress, making instructional decisions, evaluating student achievement, and evaluating the mathematics or science program as described in the national standards.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

B. The assessment tasks provide students the opportunity to demonstrate their achievement. Skills, procedural knowledge, and factual knowledge are assessed as a part of doing mathematics or science.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

C. The assessment is clearly and appropriately related to the materials and instructional practices used by students to acquire the concept(s) measured.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

III. Background and Experience:

To what degree are the following exemplars evident?

A. The teacher possesses a strong academic background in mathematics or science appropriate to the grade level taught. Participation in workshops, courses, and other educational opportunities concerning both content and pedagogy specific to mathematics or science has occurred throughout the teacher's career.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

B. The teacher is engaged in planning, developing, and delivering activities at the building, local, or state level which affect the mathematics or science teaching strategies of his/her colleagues.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

C. The teacher is an active participant or leader in professional, school, community, or youth organizations or activities that illustrate their role as an advocate for education.

3 points	fully evident
2 points	partially evident
1 point	minimally evident
0 points	not addressed

IV. Letters of Support:

Three letters addressing the exceptional qualities of the teacher are intended to highlight or support the teacher's abilities. (One letter is required from a current immediate supervisor or district-level administrator.)

3 points	fully supportive
2 points	partially supportive
1 point	minimally supportive
0 points	not supportive

V. Photographs

At least one page of the photographs illustrates important points in the material described in Section I and /or Section II.

3 points	fully supportive
2 points	partially supportive
1 point	minimally supportive
0 points	not supportive

PAEMST Application
Teacher's Information Form

Check One[1]: ____Elementary School Science ____Elementary School Mathematics

____Secondary School Science ____Secondary School Mathematics

Check Grade(s)[2]: ___K, ___1, ___2, ___3, ___4, ___5, ___6, ___7, ___8, ___9, ___10, ___11, ___12

First Name: _____ Middle Name(s): _____ Last Name: _____

Social Security Number: ____ - ___ - _____ Date of Birth: ____/____/____

Home Address: _____

Home City:_____ State: _____ Zip: _____ - _____(9 digit)

Home Telephone: ( )_____

School Name: _____

School Address: _____

School City:_____ State: _____ Zip: _____

School Telephone: ( )_____

School Fax: ( )_____

E-mail address for Internet *(if available):*_____

Number of Years of Teaching Experience_____ Number of Years at Current Position_____

State Teachers Certificate: Type:_____ Number:_____Date:_____

Describe current teaching assignment; include grade level, specialty, and weekly teaching schedule:

_____

_____

_____

[1]Elementary school teachers frequently teach both science and mathematics. However, for this program you must choose between the two subjects. Do not check both categories.

[2]A fifth–eighth grade teacher, who teaches science or mathematics 50 percent or more of the time, must enter the secondary school awards program. Teachers in self-contained classrooms, K–8, who teach science and/or mathematics, in addition to other subjects, must enter the elementary school awards program.

NSF Form 1381 (4/99, Revised)
School Data: Total Enrollment_____ Grades_____ Public_____ Private_____

School Location *(circle):* Urban, Suburban, Rural, Other
(If other, describe):_____

Indicate classroom student population percentage:

__American Indian or Alaskan Native
__Asian
__Black, not of Hispanic origin
__Hispanic
__White, not of Hispanic origin
__Pacific Islander

Describe the demographics of your classroom (i.e. special education, gifted, ESL):

Provide the following information about the principal/administrator who will receive the NSF grant that will be spent under your direction:

Name:_____ Title:_____

Institution Name: _____

Address:_____

City: _____ State: _____ Zip: _____

Provide the following information about your local superintendent or head of schools:

Name: _____ Title: _____

School District: _____

Address: _____

City: _____ State: _____ Zip: _____

Completed applications must be **postmarked by February 12, 2001,** and returned to your State Coordinator. For information on how to contact your State Coordinator, please contact your state Department of Education, call the National Science Foundation PAEMST Program at (703) 306-0422, or visit the PAEMST web site at: http://www.nsf.gov/pa

Signature_____ Date_____

Please make sure that your application includes all of the following in this order, in accordance with the stated formatting:

- ❑ *Evidence of Talent in Teaching;*
- ❑ *Assessment of Student Learning;*
- ❑ *Background and Experience;*
- ❑ *Three Letters of Support;*
- ❑ *Photographs; and*
- ❑ *Fully Completed Forms.*
- ❑ *Signature*

Applications that do not meet these requirements are subject to disqualification.

Anticipated Time-line for PAEMST Program					
February	***March/ April***	***May/ June***	***July/ August***	***September October/ November***	***December/January February***
Applications due to State Coordinators	Applications are reviewed and three State Finalists are selected for each category	State finalists are announced and sent to National Science Foundation	National Selection Committee identifies Presidential Awardees	The National Selection Committee's recommendations are sent to White House for review and clearance	National Awardees are announced

Hints From State Coordinators

To insure the greater success of your application, the State Coordinators have suggested:

- read the instructions
- follow the directions
- don't use catch phrases – make sure that the use of "education-eze" is clear and applicable
- be sure to cite specific examples
- make careful choices about your photographs and their captions – the setting and the activities should reflect your success in the classroom

Questions to ask yourself as you decide what is to be included:

- what you do to spark the imagination of your students
- who are you – show your personality, passion and flair for teaching and learning
- how do you show your belief that all students can learn
- what is your connection to your community and its educational improvement
- what is it really like in your classroom
- what have your students been able to accomplish
- how do you incorporate state or national standards or programs
- how do you use assessment in the classroom
- what content is important for your students to learn

Suggestions for the writers of the letters of support:

- encourage them to emphasize a special memory of your classroom impact on students
- ask them to feature your passion for teaching and learning
- request they cite specific examples